BID SOLICITATION NOTICE

TO RECEIVE A BID PACKAGE, BIDDER MAY EITHER DOWNLOAD THE BID FROM THE AUTHORITY'S WEBSITE AT http://www.state.nj.us/turnpike/purchasing.html OR REQUEST A BID BY COMPLETING THIS FORM AND FAXING IT TO THE NUMBER STATED BELOW FOR RECORD KEEPING PURPOSES. WE REQUEST THAT THE BIDDER COMPLETE THIS FORM AND RETURN TO US, EVEN WHEN BIDDER IS DOWNLOADING THE BID. THIS IS THE ONLY NOTICE OF BIDDING FOR THE FOLLOWING GOODS / SERVICES YOU WILL RECEIVE.

THE NEW JERSEY TURNPIKE AUTHORITY

PURCHASING DIVISION

P.O. Box 5042
Woodbridge, New Jersey 07095-5042
or
New Jersey Turnpike Administrative Offices
581 Main Street
Woodbridge, New Jersey 07095-5042
Tel. - 732-750-5300
Fax - 732-750-5399

INVITATION TO BID

TITLE: **PRICE AGREEMENT FOR HOT ASPHALT CONCRETE AND TACK OIL**

BID NO: **RM-1007 & RM-1034**

DUE DATE: **1-10-12**

TIME: **11:00 AM**

SUBMIT BIDS BEFORE THE DUE DATE AND TIME TO THE ABOVE ADDRESS

BIDDER INFORMATION (PLEASE PRINT)

_____
NAME OF BIDDING ENTITY

_____
ADDRESS

_____
CITY, STATE AND ZIP CODE

_____
E-MAIL ADDRESS

_____ _____
REPRESENTATIVE TO CONTACT-NAME & TITLE TELEPHONE NO.

_____ _____
FEDERAL TAX I.D. NO. or TAXPAYER I.D. NO. FAX NO

☐ **WE HAVE DOWNLOADED THE BID FROM THE AUTHORITY WEBSITE**

THE NEW JERSEY TURNPIKE AUTHORITY

PURCHASING DIVISION
P.O. Box 5042
Woodbridge, New Jersey 07095-5042
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BIDDER INFORMATION
(TO BE COMPLETED BY THE BIDDER)
Please Print

_____
NAME OF BIDDING ENTITY

_____
ADDRESS

_____
CITY, STATE AND ZIP CODE

_____
E-MAIL ADDRESS

_____ _____
REPRESENTATIVE TO CONTACT-NAME & TITLE TELEPHONE NO.

_____ _____
FEDERAL TAX I.D. NO. or TAXPAYER I.D. NO. FAX NO.

_____BUSINESS CORPORATION_____PARTNERSHIP_____INDIVIDUAL

_____OTHER (SPECIFY):_____

BIDDER GUIDELINES/CHECKLIST

PURSUANT TO N.J.S.A. 27:23-6.1 AND N.J.A.C. 19:9-2.1 et seq. BID PROPOSALS WHICH FAIL TO CONFORM TO THE FOLLOWING REQUIREMENTS MAY BE REJECTED:

1. Bid proposals must be received at or before the public opening time stated on the cover page at the following place: New Jersey Turnpike Authority, Administration Building, 581 Main Street, Woodbridge, New Jersey 07095. Telephone or Facsimile proposals will not be accepted. The accompanying self-addressed envelope should contain or be attached to the bid proposal.

2. The bid proposal must include all price information. Proposal prices shall include delivery of all items F.O.B. destination or as otherwise provided. Price quotes must be firm through issuance of contract.

3. All bid proposal prices must be typed or written in ink. Quote the specified unit of measure. If bidding an alternate, provide detailed specifications.

4. All corrections, white-outs, erasures, re-striking of type, or other forms of alteration or the appearance of alteration, to unit and/or total prices must be initialed in ink by the bidder.

5. The bidder must attend the mandatory site inspection at the following date(s) and time(s) if applicable:

6. **See the Authority's Instructions to Bidders for a complete list of the Authority's standard contract Terms and Conditions, as well as REQUIRED FORMS that must be included with the bid proposal or the bid will be rejected. (SEE ATTACHED)**

   Have you included the following documents?
   - (a) State of New Jersey Division of Revenue Business Registration Certificate(s)
   - (b) Certification of Registration with the Secretary of State (only if a foreign (non-NJ) corporation)
   - (c) Acknowledgement of Requirement for Disclosure of Political Contributions (ELEC)
   - (d) Public Works Contractor Registration Certificate(s) (if applicable)
   - (e) Affirmative Action Information Sheet with Certificate or Form AA302
   - (f) Signed Mandatory Equal Employment Opportunity Language
   - (g) SBE/WBE/MBE Certificates and Form
   - (h) Vendor Disclosure Form (EO129 - Location of Services)
   - (i) Notice of Set-Off for State Tax (P.L. 1999, c.159)
   - (j) Automobile Waiver
   - (k) Insurance Requirement

7. **This Request for Bids requires the following Mandatory Documents or the bid will be rejected:**

   Bid Bond and/or Letter of Surety, Cashiers Check Requirement
   Stockholder/Partnership Disclosure Statement

8. Bidder must sign the Bid

9. Contract Bond Requirement (If awarded See Page 8 of "Instruction to Bidders")
   (REQUIRED IF TOTAL CONTRACT AMOUNT IS IN EXCESS OF $100,000, CONTRACT AMOUNT SHALL BE 10% OF BID TOTAL)

REQUEST FOR BIDS
THIS IS NOT AN ORDER

DATE OF REQUEST:

Sealed Bids RM-1007 & RM-1034 will be received at the New Jersey Turnpike Authority Administrative Offices, 581 Main St., Woodbridge, New Jersey, as stated on the cover page at which time and place said proposal will be publicly opened and read. Bidders mailing Bids should allow for their normal mail delivery time to ensure timely receipt of their Public Bids. Please be advised that using overnight / next-day delivery service does not guarantee overnight/next-day deliveries to our location. The Authority will not be responsible for any bid not being received by the required date and time.

INTENTION

It is the intention of the Authority to issue a Price Agreement for the procurement of **HOT ASPHALT CONCRETE, I-2, I-4, I-5 AND TACK OIL PER THE ATTACHED SPECIFICATIONS FOR THE NJ TURNPIKE AND THE GARDEN STATE PARKWAY.** Items purchased under this Agreement will be delivered as directed by the Authority. The term of the contract shall be for one year with the option to extend for two additional one-year terms at the Authority's discretion and Vendor's concurrence. Please contact John J. Parmigiani with any questions regarding this procurement contract at 732-750-5300 X 8632.

BID SHEET INSTRUCTIONS

Prospective Bidders should follow all instructions in this Request for Bids and in the standard Instructions to Bidders issued by the Authority, and any other documents issued by the Authority in connection with this Request for Bids (collectively, "Bid Documents"). Prospective Bidders must examine the Bid Documents carefully before bidding and must ask the Director of Purchasing in writing for any interpretation or correction of any apparent ambiguity, inconsistency or apparent error therein. Any written request for interpretation or correction shall be directed to the Director of Purchasing. Written requests can be submitted by FAX at 732-750-5399. If necessary, an interpretation or correction shall be issued by the Director of Purchasing as an Addendum and FAXED to prospective Bidders who have obtained the Bid Documents. Upon the issuing of an Addendum, the content of the Addendum shall become part of the Bid Documents. **Requests for interpretation or correction shall be considered only if received at least 5 business days prior to the bid opening date**.

Only written interpretations or corrections issued by the Director of Purchasing by Addendum shall be binding. The submission of the Bid is conclusive evidence that the Bidder is fully aware of the conditions, requirements, and details as stated in the Bid Documents. If the Bidder, prior to submitting its Bid, fails to notify the Director of Purchasing of the existence of an ambiguity, inconsistency in the Bid Documents, a Bid will conclusively be presumed to have been based upon the interpretation of such ambiguity or inconsistency.

All erasures, interpolations or other physical changes on the Bid form shall be signed or initialed by the bidder. Bids containing any conditions, omissions, erasures, alterations, or items not called for in this Request for Bids, or irregularities of any kind, may be rejected by the Authority, in its sole discretion, as being incomplete. The bidders shall not attach conditions, limitations or provisos to their Bid, except in cases where "Exceptions" are permitted.

The Authority will accept Approved Equivalent items on this bid. If a bidder is basing the proposal on items other than what is specified, and wishes the items he proposes to be considered as an "Approved Equivalent," the Bidder shall enter a price on the bid sheet then submit on the Exception Sheet in the exact format of the line item on the Request for Bids contained herein, the item number, an item description, including manufacturers name, model number, and packaging quantities of those Items which the Bidder proposes to substitute.

Bidders must supply a price for every item listed per Area. Bids not having a price in the listed items per area may be rejected. **BIDDER MAY BID ON ONE OR MULTIPLE AREAS. AWARD WILL BE DETERMINED BY THE LOWEST RESPONSIBLE AND RESPONSIVE BIDDER BY AREA.**

Bidders must quote only one price per line item. If a bidder quotes multiple prices per line item, the bid proposal may be rejected.

The Authority will purchase amounts of any given item as needed, at the sole discretion of the Authority and shall not be bound by any quantities listed,. All items are to be bid FOB Destination. All shipping, handling, and other costs should be considered in the bid price.

BIDDERS MUST HAVE A FACILITY OR PLANT LOCATED WITHIN 25 MILES FOR EACH AREA BEING BID. IF THE BIDDER DOES NOT HAVE A FACILITY OR PLANT WITHIN THE 25 MILE RADIUS OF THE AREA BEING BID, THEIR BID MAY BE REJECTED.

Price Adjustment Clause:

Prices for asphalt may be adjusted upward or downward by the Authority after the submission of bids based on the **Asphalt Cement Price Index, North and South of Route 195**, as Published by the State of New Jersey Department of Transportation, (the "NJDOT"), (www.state.nj.us/transportation/business/trnsport/PriceIndex.shtm). The base price for this bid shall use the **Asphalt Cement Price Index** number as published for October 2011, ($590.00), as the benchmark for the basis of bidding. . In succeeding months the price of asphalt shall be adjusted monthly upward or downward by the NJDOT. The percentage change in the index from the October 2011 index number of $590.00 as a portion of the bid price shall be used as the factor in determining the cost of Asphalt during the term of this contract. However, the adjusted price shall never go below the bidders proposed price. In succeeding months the cost shall be calculated using this index benchmark of $590.00. **This index shall pertain to only the asphalt bid on this solicitation and not to fuel surcharges, (since the Authority shall pick up the material), or tack oil.**

Examples of Index Calculations

Vendor bid price is $60 per ton of asphalt

Example1) If the Asphalt Cement Index for the area bid is $570 (Estimate) at the time of the Authority picking up the material; in this case the Authority would pay the $60 bid price per ton due to the CPI being less than the $590.00 index benchmark.

Example 2) If the Asphalt Cement Index for the area bid is $600 (estimate) at the time of the Authority picking up the material; in this case the Authority would pay the $60 bid price plus the percent increase over the $590.00 index price **or** ($60 bid x ($600 new index-$590.00 bid index) / +$60 = $61.01 per ton.

REQUEST FOR BIDS

MATERIAL AND SERVICE DESCRIPTION

NORTHERN SECTION OF THE NJ TURNPIKE

MILE POST 67.2 TO 90.0

ESTIMATED VALUE $ 10,000

ITEM	QTY.	UNIT OF MEAS.	DESCRIPTION	UNIT PRICE	TOTAL DOLLAR AMOUNT
1	35	TON	HOT ASPHALT I-2 PER ATTACHED SPECIFICATIONS	$	$
2	35	TON	HOT ASPHALT I-4 PER ATTACHED SPECIFICATIONS	$	$
3	35	TON	HOT ASPHALT I-5 PER ATTACHED SPECIFICATIONS	$	$
4	35	GALLON	TACK OIL **IN 5 GALLON CANS** PER ATTACHED SPECIFICATIONS	$	$

TOTAL OF LINES 1 THROUGH 4 $ _____

PLEASE LIST THE FACILITY'S ADDRESS (25 MILES OF AREA BID AS PER BID SPECIFICATIONS.)

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REQUEST FOR BIDS

MATERIAL AND SERVICE DESCRIPTION

NORTHERN SECTION OF THE NJ TURNPIKE

MILE POST 90.0 to 105.0

ESTIMATED VALUE $10,000

ITEM	QTY.	UNIT OF MEAS.	DESCRIPTION	UNIT PRICE	TOTAL DOLLAR AMOUNT
1	35	TON	HOT ASPHALT I-2 PER ATTACHED SPECIFICATIONS	$	$
2	35	TON	HOT ASPHALT I-4 PER ATTACHED SPECIFICATIONS	$	$
3	35	TON	HOT ASPHALT I-5 PER ATTACHED SPECIFICATIONS	$	$
4	35	GALLON	TACK OIL **IN 5 GALLON CANS** PER ATTACHED SPECIFICATIONS	$	$

TOTAL OF LINES 1 THROUGH 4 $ _____

PLEASE LIST THE FACILITY'S ADDRESS (25 MILES OF AREA BID AS PER BID SPECIFICATIONS.)

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REQUEST FOR BIDS

MATERIAL AND SERVICE DESCRIPTION

NORTHERN SECTION OF THE NJ TURNPIKE

MILE POST 105.0 to 122.0

ESTIMATED VALUE $10,000

ITEM	QTY.	UNIT OF MEAS.	DESCRIPTION	UNIT PRICE	TOTAL DOLLAR AMOUNT
1	35	TON	HOT ASPHALT I-2 PER ATTACHED SPECIFICATIONS	$	$
2	35	TON	HOT ASPHALT I-4 PER ATTACHED SPECIFICATIONS	$	$
3	35	TON	HOT ASPHALT I-5 PER ATTACHED SPECIFICATIONS	$	$
4	35	GALLON	TACK OIL **IN 5 GALLON CANS** PER ATTACHED SPECIFICATIONS	$	$

TOTAL OF LINES 1 THROUGH 4 $ _____

PLEASE LIST THE FACILITY'S ADDRESS (25 MILES OF AREA BID AS PER BID SPECIFICATIONS.)

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REQUEST FOR BIDS

MATERIAL AND SERVICE DESCRIPTION

NORTHERN SECTION OF THE NJ TURNPIKE

MILE POST 0.0 TO 8.2 HUDSON BAY EXTENSION WHICH INCLUDES EASTERLY AND WESTERLY ALIGNMENTS

ESTIMATED VALUE $20,000

ITEM	QTY.	UNIT OF MEAS.	DESCRIPTION	UNIT PRICE	TOTAL DOLLAR AMOUNT
1	70	TON	HOT ASPHALT I-2 PER ATTACHED SPECIFICATIONS	$	$
2	70	TON	HOT ASPHALT I-4 PER ATTACHED SPECIFICATIONS	$	$
3	70	TON	HOT ASPHALT I-5 PER ATTACHED SPECIFICATIONS	$	$
4	50	GALLON	TACK OIL **IN 5 GALLON CANS** PER ATTACHED SPECIFICATIONS	$	$

TOTAL OF LINES 1 THROUGH 4 $ _____

PLEASE LIST THE FACILITY'S ADDRESS (25 MILES OF AREA BID AS PER BID SPECIFICATIONS.)

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REQUEST FOR BIDS

MATERIAL AND SERVICE DESCRIPTION

SOUTHERN SECTION OF THE NJ TURNPIKE
MILE POST 0.0 TO 27.5 CAMDEN COUNTY

ESTIMATED VALUE $25,000

ITEM	QTY.	UNIT OF MEAS.	DESCRIPTION	UNIT PRICE	TOTAL DOLLAR AMOUNT
1	80	TON	HOT ASPHALT I-2 PER ATTACHED SPECIFICATIONS	$	$
2	80	TON	HOT ASPHALT I-4 PER ATTACHED SPECIFICATIONS	$	$
3	80	TON	HOT ASPHALT I-5 PER ATTACHED SPECIFICATIONS	$	$
4	80	GALLON	TACK OIL **IN 5 GALLON CANS** PER ATTACHED SPECIFICATIONS	$	$

TOTAL OF LINES 1 THROUGH 4 $ _____

PLEASE LIST THE FACILITY'S ADDRESS (25 MILES OF AREA BID AS PER BID SPECIFICATIONS.)

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REQUEST FOR BIDS

MATERIAL AND SERVICE DESCRIPTION

SOUTHERN SECTION OF THE NJ TURNPIKE
MILE POST 27.5 TO 50.0 BURLINGTON COUNTY

ESTIMATED VALUE $25,000

ITEM	QTY.	UNIT OF MEAS.	DESCRIPTION	UNIT PRICE	TOTAL DOLLAR AMOUNT
1	80	TON	HOT ASPHALT I-2 PER ATTACHED SPECIFICATIONS	$	$
2	80	TON	HOT ASPHALT I-4 PER ATTACHED SPECIFICATIONS	$	$
3	80	TON	HOT ASPHALT I-5 PER ATTACHED SPECIFICATIONS	$	$
4	80	GALLON	TACK OIL **IN 5 GALLON CANS** PER ATTACHED SPECIFICATIONS	$	$

TOTAL OF LINES 1 THROUGH 4 $ _____

PLEASE LIST THE FACILITY'S ADDRESS (25 MILES OF AREA BID AS PER BID SPECIFICATIONS.)

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REQUEST FOR BIDS

MATERIAL AND SERVICE DESCRIPTION

SOUTHERN SECTION OF THE NJ TURNPIKE
MILE POST 50.0 TO 67.2 BURLINGTON COUNTY & MERCER COUNTY

ESTIMATED VALUE $25,000

ITEM	QTY.	UNIT OF MEAS.	DESCRIPTION	UNIT PRICE	TOTAL DOLLAR AMOUNT
1	80	TON	HOT ASPHALT I-2 PER ATTACHED SPECIFICATIONS	$	$
2	80	TON	HOT ASPHALT I-4 PER ATTACHED SPECIFICATIONS	$	$
3	80	TON	HOT ASPHALT I-5 PER ATTACHED SPECIFICATIONS	$	$
4	80	GALLON	TACK OIL **IN 5 GALLON CANS** PER ATTACHED SPECIFICATIONS	$	$

TOTAL OF LINES 1 THROUGH 4 $ _____

PLEASE LIST THE FACILITY'S ADDRESS (25 MILES OF AREA BID AS PER BID SPECIFICATIONS.)

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REQUEST FOR BIDS

MATERIAL AND SERVICE DESCRIPTION

SOUTHERN SECTION OF THE NJ TURNPIKE
MILE POST 0.0 TO 6.5 PEARL HARBOR EXTENSION BURLINGTON COUNTY

ESTIMATED VALUE $25,000

ITEM	QTY.	UNIT OF MEAS.	DESCRIPTION	UNIT PRICE	TOTAL DOLLAR AMOUNT
1	80	TON	HOT ASPHALT I-2 PER ATTACHED SPECIFICATIONS	$	$
2	80	TON	HOT ASPHALT I-4 PER ATTACHED SPECIFICATIONS	$	$
3	80	TON	HOT ASPHALT I-5 PER ATTACHED SPECIFICATIONS	$	$
4	80	GALLON	TACK OIL **IN 5 GALLON CANS** PER ATTACHED SPECIFICATIONS	$	$

TOTAL OF LINES 1 THROUGH 4 $ _____

PLEASE LIST THE FACILITY'S ADDRESS (25 MILES OF AREA BID AS PER BID SPECIFICATIONS.)

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REQUEST FOR BIDS
MATERIAL AND SERVICE DESCRIPTION

THE GARDEN STATE PARKWAY
MILE MARKER 0 TO 27.0

ESTIMATED VALUE $20,000

ITEM	QTY.	UNIT OF MEAS.	DESCRIPTION	UNIT PRICE	TOTAL DOLLAR AMOUNT
1	70	TON	HOT ASPHALT I-2 PER ATTACHED SPECIFICATIONS	$	$
2	70	TON	HOT ASPHALT I-4 PER ATTACHED SPECIFICATIONS	$	$
3	70	TON	HOT ASPHALT I-5 PER ATTACHED SPECIFICATIONS	$	$
4	50	GALLON	TACK OIL **IN 5 GALLON CANS** PER ATTACHED SPECIFICATIONS	$	$

TOTAL OF LINES 1 THROUGH 4 $ _____

PLEASE LIST THE FACILITY'S ADDRESS (25 MILES OF AREA BID AS PER BID SPECIFICATIONS.)

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REQUEST FOR BIDS
MATERIAL AND SERVICE DESCRIPTION

THE GARDEN STATE PARKWAY
MILE MARKER 27.0 TO 48.0

ESTIMATED VALUE $20,000

ITEM	QTY.	UNIT OF MEAS.	DESCRIPTION	UNIT PRICE	TOTAL DOLLAR AMOUNT
1	70	TON	HOT ASPHALT I-2 PER ATTACHED SPECIFICATIONS	$	$
2	70	TON	HOT ASPHALT I-4 PER ATTACHED SPECIFICATIONS	$	$
3	70	TON	HOT ASPHALT I-5 PER ATTACHED SPECIFICATIONS	$	$
4	50	GALLON	TACK OIL **IN 5 GALLON CANS** PER ATTACHED SPECIFICATIONS	$	$

TOTAL OF LINES 1 THROUGH 4 $ _____

PLEASE LIST THE FACILITY'S ADDRESS (25 MILES OF AREA BID AS PER BID SPECIFICATIONS.)

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REQUEST FOR BIDS
MATERIAL AND SERVICE DESCRIPTION

THE GARDEN STATE PARKWAY
MILE MARKER 48.0 TO 55.0

ESTIMATED VALUE $20,000

ITEM	QTY.	UNIT OF MEAS.	DESCRIPTION	UNIT PRICE	TOTAL DOLLAR AMOUNT
1	70	TON	HOT ASPHALT I-2 PER ATTACHED SPECIFICATIONS	$	$
2	70	TON	HOT ASPHALT I-4 PER ATTACHED SPECIFICATIONS	$	$
3	70	TON	HOT ASPHALT I-5 PER ATTACHED SPECIFICATIONS	$	$
4	50	GALLON	TACK OIL **IN 5 GALLON CANS** PER ATTACHED SPECIFICATIONS	$	$

TOTAL OF LINES 1 THROUGH 4 $ _____

PLEASE LIST THE FACILITY'S ADDRESS (25 MILES OF AREA BID AS PER BID SPECIFICATIONS.)

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REQUEST FOR BIDS
MATERIAL AND SERVICE DESCRIPTION

THE GARDEN STATE PARKWAY
MILE MARKER 55.0 TO 94.0

ESTIMATED VALUE $20,000

ITEM	QTY.	UNIT OF MEAS.	DESCRIPTION	UNIT PRICE	TOTAL DOLLAR AMOUNT
1	70	TON	HOT ASPHALT I-2 PER ATTACHED SPECIFICATIONS	$	$
2	70	TON	HOT ASPHALT I-4 PER ATTACHED SPECIFICATIONS	$	$
3	70	TON	HOT ASPHALT I-5 PER ATTACHED SPECIFICATIONS	$	$
4	50	GALLON	TACK OIL **IN 5 GALLON CANS** PER ATTACHED SPECIFICATIONS	$	$

TOTAL OF LINES 1 THROUGH 4 $ _____

PLEASE LIST THE FACILITY'S ADDRESS (25 MILES OF AREA BID AS PER BID SPECIFICATIONS.)

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REQUEST FOR BIDS
MATERIAL AND SERVICE DESCRIPTION

THE GARDEN STATE PARKWAY
MILE MARKER 94.0 TO 120.0

ESTIMATED VALUE $20,000

ITEM	QTY.	UNIT OF MEAS.	DESCRIPTION	UNIT PRICE	TOTAL DOLLAR AMOUNT
1	70	TON	HOT ASPHALT I-2 PER ATTACHED SPECIFICATIONS	$	$
2	70	TON	HOT ASPHALT I-4 PER ATTACHED SPECIFICATIONS	$	$
3	70	TON	HOT ASPHALT I-5 PER ATTACHED SPECIFICATIONS	$	$
4	50	GALLON	TACK OIL **IN 5 GALLON CANS** PER ATTACHED SPECIFICATIONS	$	$

TOTAL OF LINES 1 THROUGH 4 $ _____

PLEASE LIST THE FACILITY'S ADDRESS (25 MILES OF AREA BID AS PER BID SPECIFICATIONS.)

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REQUEST FOR BIDS
MATERIAL AND SERVICE DESCRIPTION

THE GARDEN STATE PARKWAY
MILE MARKER 120.0 TO 134.0

ESTIMATED VALUE $20,000

ITEM	QTY.	UNIT OF MEAS.	DESCRIPTION	UNIT PRICE	TOTAL DOLLAR AMOUNT
1	70	TON	HOT ASPHALT I-2 PER ATTACHED SPECIFICATIONS	$	$
2	70	TON	HOT ASPHALT I-4 PER ATTACHED SPECIFICATIONS	$	$
3	70	TON	HOT ASPHALT I-5 PER ATTACHED SPECIFICATIONS	$	$
4	50	GALLON	TACK OIL **IN 5 GALLON CANS** PER ATTACHED SPECIFICATIONS	$	$

TOTAL OF LINES 1 THROUGH 4 $ _____

PLEASE LIST THE FACILITY'S ADDRESS (25 MILES OF AREA BID AS PER BID SPECIFICATIONS.)

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REQUEST FOR BIDS
MATERIAL AND SERVICE DESCRIPTION

THE GARDEN STATE PARKWAY
MILE MARKER 134.0 TO 143.0

ESTIMATED VALUE $25,000

ITEM	QTY.	UNIT OF MEAS.	DESCRIPTION	UNIT PRICE	TOTAL DOLLAR AMOUNT
1	80	TON	HOT ASPHALT I-2 PER ATTACHED SPECIFICATIONS	$	$
2	80	TON	HOT ASPHALT I-4 PER ATTACHED SPECIFICATIONS	$	$
3	80	TON	HOT ASPHALT I-5 PER ATTACHED SPECIFICATIONS	$	$
4	80	GALLON	TACK OIL **IN 5 GALLON CANS** PER ATTACHED SPECIFICATIONS	$	$

TOTAL OF LINES 1 THROUGH 4 $ _____

PLEASE LIST THE FACILITY'S ADDRESS (25 MILES OF AREA BID AS PER BID SPECIFICATIONS.)

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REQUEST FOR BIDS
MATERIAL AND SERVICE DESCRIPTION

THE GARDEN STATE PARKWAY
MILE MARKER 153.0 TO 158.0

ESTIMATED VALUE $15,000

ITEM	QTY.	UNIT OF MEAS.	DESCRIPTION	UNIT PRICE	TOTAL DOLLAR AMOUNT
1	40	TON	HOT ASPHALT I-2 PER ATTACHED SPECIFICATIONS	$	$
2	40	TON	HOT ASPHALT I-4 PER ATTACHED SPECIFICATIONS	$	$
3	40	TON	HOT ASPHALT I-5 PER ATTACHED SPECIFICATIONS	$	$
4	70	GALLON	TACK OIL **IN 5 GALLON CANS** PER ATTACHED SPECIFICATIONS	$	$

TOTAL OF LINES 1 THROUGH 4 $ _____

PLEASE LIST THE FACILITY'S ADDRESS (25 MILES OF AREA BID AS PER BID SPECIFICATIONS.)

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REQUEST FOR BIDS
MATERIAL AND SERVICE DESCRIPTION

THE GARDEN STATE PARKWAY
MILE MARKER 153.0 TO 143.0

ESTIMATED VALUE $25,000

ITEM	QTY.	UNIT OF MEAS.	DESCRIPTION	UNIT PRICE	TOTAL DOLLAR AMOUNT
1	80	TON	HOT ASPHALT I-2 PER ATTACHED SPECIFICATIONS	$	$
2	80	TON	HOT ASPHALT I-4 PER ATTACHED SPECIFICATIONS	$	$
3	80	TON	HOT ASPHALT I-5 PER ATTACHED SPECIFICATIONS	$	$
4	80	GALLON	TACK OIL **IN 5 GALLON CANS** PER ATTACHED SPECIFICATIONS	$	$

TOTAL OF LINES 1 THROUGH 4 $ _____

PLEASE LIST THE FACILITY'S ADDRESS (25 MILES OF AREA BID AS PER BID SPECIFICATIONS.)

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REQUEST FOR BIDS
MATERIAL AND SERVICE DESCRIPTION

THE GARDEN STATE PARKWAY
MILE MARKER 158.0 TO 172.0

ESTIMATED VALUE $15,000

ITEM	QTY.	UNIT OF MEAS.	DESCRIPTION	UNIT PRICE	TOTAL DOLLAR AMOUNT
1	40	TON	HOT ASPHALT I-2 PER ATTACHED SPECIFICATIONS	$	$
2	40	TON	HOT ASPHALT I-4 PER ATTACHED SPECIFICATIONS	$	$
3	40	TON	HOT ASPHALT I-5 PER ATTACHED SPECIFICATIONS	$	$
4	70	GALLON	TACK OIL **IN 5 GALLON CANS** PER ATTACHED SPECIFICATIONS	$	$

TOTAL OF LINES 1 THROUGH 4 $ _____

PLEASE LIST THE FACILITY'S ADDRESS (25 MILES OF AREA BID AS PER BID SPECIFICATIONS.)

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ANY INQUIRIES CONCERNING THIS BID MUST BE SENT VIA FAX NO LATER THAN FIVE (5) BUSINESS DAYS BEFORE BID OPENING

DELIVERY DATE _____, to sites as specified in the bid specifications.
Discount Terms Based On Net 30 Days Only.

NEW JERSEY TURNPIKE AUTHORITY

_____

AUTHORIZED SIGNATURE

_____/_____
Name of Company and / Authorized Signature of Bidder

SIGNATURE PAGE

ADDENDA / INQUIRIES: COMPLETE (if applicable) BEFORE SUBMITTING BID:
Receipt of Addendum / Inquiries #_____dated_____is hereby acknowledged.
Receipt of Addendum / Inquiries #_____dated_____is hereby acknowledged.

☐ **CHECK BOX IF NO ADDENDA/INQUIRY ISSUED**

(All Addenda / Inquiries must be acknowledged as indicated above.)

BID IRREVOCABLE: This offer shall be irrevocable for ninety (90) working days after the date on which the Authority publicly opens this bid except in those instances where an unsuccessful bidder has filed a Protest pursuant to N.J.A.C. 19:9-2.12. Upon notification of a Protest, Bidders are required to hold their prices for an additional 90 days. All bidders will be notified in writing of the action taken by the Authority.

OFFER/CERTIFICATION: The undersigned offers and agrees to furnish to the New Jersey Turnpike Authority the services and/or materials in compliance with all terms, conditions, specifications and addenda of the RFB, Bid Documents, and resulting contract. The undersigned further certifies understanding and compliance with the requirements of the standard terms and conditions as stated in the Instructions to Bidders included with the Bid Documents. The undersigned certifies that he or she executes this bid with full authority so to do; and that all statements contained in this bid and in this certification are true and correct, and made with full knowledge that the Authority relies upon the truth of the statements contained herein and in any statements requested by the Authority showing evidence of qualifications in awarding the contract.

I certify that the foregoing statements made by me are true. I am aware that if any of the foregoing statements made by me are willfully false, I am subject to punishment.

AUTHORIZED SIGNATURE:_____

Print Name and Title:_____

Bidding Entity:_____

Address:_____

City, State, Zip:_____

Telephone #: _____ Fax:_____

Date: # _____

NEW JERSEY TURNPIKE AUTHORITY

NO RESPONSE BID SURVEY

BID REQUISITION NUMBER: RM-1007 & RM-1034

PROPOSAL TITLE: HOT ASPHALT CONCRETE AND TACK OIL

If you do not choose to respond to this Bid, please complete the form below:

Name of Company_____

Reason you did not respond (Check all that apply)

_____ Cannot supply product or service

_____ Cannot meet technical specifications

_____ Cannot meet delivery specifications

_____ Cannot meet legal requirements
(i.e. bid/performance/security/insurance, etc.)

_____ Cannot provide a competitive price at this time

_____ Interested in receiving specifications for informational purposes only.

_____ Insufficient lead time to respond

_____ Other:(please be specific)

Do you wish to remain on our mailing list?

_____Yes _____No

Additional comments: _____
_____
_____
_____

Signed :(optional)_____

Company:_____

<u>Exception Form</u>: Vendors may list proposed equivalent items below for consideration by the Authority, and should include the item number, item description, manufacturer's name, model number and packaging quantities of those items which the vendor proposes to substitute. Vendors may not use this form to attach conditions, limitations, or other provisos to their bid. Please be advised that any proposed equivalent or other exceptions that are deemed to be a material deviation from the specifications shall be a mandatory cause for rejection of the bid, and the vendor proceeds at its own risk

Delivery Date Exception _____
Warranty Date Exception_____
Vendor's Name_____
Signature of Vendor Responsible Officer_____
Date_____

NEW JERSEY TURNPIKE AUTHORITY
SPECIFICATIONS FOR ASPHALT

SECTION 902 - AGGREGATES

902.01 General.

Sampling and testing of aggregates shall conform to the requirements of ASTM C33.

Geologic classifications from which broken stone aggregates are manufactured shall be defined as follows:

(A) TRAP ROCK.

Trap Rock shall mean a basic igneous rock consisting principally of augite and plagioclase. It shall be either basalt or diabase rock. It shall be of medium or fine grain texture with even distribution of constituent minerals and uniform quality and color.

(B) ARGILLITE.

Argillite shall mean a hard, uniformly dense, fine-grained, metasedimentary rock devoid of fissile partings. It shall be uniform in quality and color and have blocky cleavage.

(C) QUARTZITE.

Quartzite shall mean a metamorphic rock composed principally of quartz. It shall be quarried so that only the nonarkosic, uniformly compacted quartzites are included in the graded products, and shall not be schistose in structure.

(D) CARBONATE ROCK.

Carbonate Rock shall mean a rock consisting primarily of calcium and magnesium carbonates. It shall contain not less than 75 percent by weight total of combined calcium and magnesium carbonates, nor more than 20 percent of elements which are insoluble in hot, dilute, hydrochloric acid.

(E) GRANITE.

Granite shall mean an equigranular or porphyritic igneous rock consisting principally of quartz and feldspar. It shall be of medium or fine grain texture, shall have an even distribution of the constituent materials, and shall be uniform in quality and structure.

(F) GNEISS.

Gneiss shall mean a metamorphic rock consisting principally of quartz and feldspar. It shall have a dense structure, shall not break in thin pieces at lines of stratification, and shall have a uniform distribution of minerals.

All stockpiles shall meet the following:

The area for each stockpile shall be of adequate size, reasonably uniform in cross-section, well drained, and cleared of foreign materials.

Stockpiles at Portland cement concrete and HMA mixing plants shall be of sufficient size to provide for a minimum of one day's operations. The aggregate stockpiles shall be placed on a firm, hard surface such as a compacted aggregate or stabilized base, HMA or concrete surface, and shall be constructed by placing the aggregates in layers not more than 3 feet thick.

Aggregates from the haul away areas shall not be used. The piles shall be located so that there is no contamination by foreign material and no intermingling of aggregates from adjacent piles.

Aggregates from different sources, geological classifications, or of different gradings shall not be stockpiled near each other unless a bulkhead is placed between the different materials. Aggregates of different gradings and from different sources for use in blends shall be blended by proportion through the weigh hoppers. Aggregates found segregated or contaminated will be rejected for use. A rejected stockpile may be reconstructed for further evaluation. Aggregates shall be removed from stockpiles in a manner such as to prevent segregation.

Aggregates that require washing shall not be used sooner than 24 hours after washing, or until the surplus water has drained out and the material has a uniform moisture content.

Reclaimed Asphalt Pavement (RAP) stockpiles shall consist of RAP from an approved NJDOT, NJHA, NJTA HMA or Superpave mixture only. When tested the coarse aggregate in this RAP shall be broken stone only in conformance with Subsection 902.02 and the fine aggregate shall conform to Subsection 902.02. All RAP shall be processed prior to testing by crushing to where all RAP shall pass the ½" or smaller screen and shall contain only coarse aggregate, fine aggregate and asphalt binder, free of solvents or other contaminating substances. Stockpiles of RAP to be used in HMA mixes shall not exceed 15 feet in height. Stockpiles shall be covered or otherwise protected to prevent buildup of moisture in the stockpile.

Steel-tracked equipment will not be permitted on the stockpiles.

902.02 Broken Stone.

Broken stone for concrete shall be either trap rock, argillite, quartzite carbonate rock, granite, limestone or gneiss. Only one of these classifications shall be used in any one structure, unless otherwise approved by the Engineer. The percentage of wear for coarse aggregates 1-1/2 inches and larger shall be determined by AASHTO T3. The maximum allowable percentage of wear will be 4.5 for all types of stone. The percentage of wear for coarse aggregates small than 1 ½ inches, when tested by means of the Los Angeles Machine using AASHTO T96, shall not exceed 40 percent. The broken stone shall be uniform in texture and quality and free from pieces coated with clay, caked stone dust, and other foreign materials. It shall contain not more than 5 percent of weathered or decomposed rock; not more than 5 percent of stone of a classification other than that approved for use; not more than 5 percent, by weight, of flat or elongated pieces; and the total of all of the above shall not exceed 8 percent. Absorption in cold water shall be not more than 1.2 percent as determined by AASHTO T85. A flat piece shall be one in which the ratio of the width to thickness of its circumscribing rectangular prism is greater than 4 to 1 and an elongated piece shall be one in which the ratio of the length to width of it's circumscribing rectangular prism is greater than 4 to 1. It shall not lose more than 10 percent when testing ledge rock or more than 8 percent when testing graded sizes according to the sodium sulfate method by AASHTO T104.

Broken stone for asphalt concrete shall have a percentage of wear (Los Angeles) for surface course of no more than 25 percent and for leveling course and base course of more than 25 percent and for leveling course and base course of no more than 35 percent as determined by AAASHTO T96.

Only broken stone shall be used in the pavement surface and leveling courses, or in the bridge surfacing course. The stone shall be either argillite, gneiss, granite, quartzite or trap rock. Carbonates stone shall not be used in these courses.

902.03 Gravel.

Gravel for concrete and other specified purposes shall be either crushed or uncrushed, containing not more than 2 percent of soft fragments not more than a total of 0.5 percent of clay lumps, coal, organic and other foreign matter; not more than 3 percent of thin, elongated pieces as defined above and shall be practically free from sea salt and other deleterious matter. Absorption in cold water shall be not more than 2.5 percent as determined by AASHTO T85. Before being loaded for shipment, it shall be washed so that the surfaces are clean and free from coatings of foreign matter. The percentage of wear shall not be more than 35 when determined in accordance with AASHTO T96.

902.04 Fine Aggregate.

Fine aggregate for concrete and mortar shall be particles of quartz or other hard durable rock, moderately sharp and free from soft particles, clay, shale, loam, cemented particles, mica, salt and organic and other foreign matter. The surface of the particles shall be clean, and the aggregate, including grading, shall be in accordance with the requirements for fine aggregates in ASTM C33.

When the aggregate is mixed with cement and water, the resulting mortar shall have compressive and tensile strengths at the age of 7 and 28 days which are not less than those of mortar similarly prepared with standard Ottawa sand. When for testing purposes, Ottawa sand is called for and not available, a similar quartz sand which the Laboratory has compared for strength results with standard Ottawa sand may be used, but all test results shall be reported on the basis of percentage of Ottawa sand strength as computed.

Fine aggregate (passing the No. 8 sieve) for asphalt paving mixtures shall be stone sand, natural sand, or combinations thereof. Stone sand shall be produced from broken stone conforming to the quality requirements specified above for broken stone. Natural sand shall consist of particles of quartz or other hard durable rock and shall be predominately angular in shape. Quality requirements for fine aggregates shall consist of a maximum absorption in cold water of 2 percent by weight, when subjected to five cycles of the soundness test shall have a weighted loss of not more than 5 percent using sodium sulfate and shall not contain more than 2 percent by weight of soft particles, clay, loam, foreign and deleterious matter.

Fine aggregate for asphalt concrete bridge surfacing shall only be stone sand.

Fine aggregate for sand bedding shall be a coarse sand of quality approved by the Engineer.

Fine aggregate used in the manufacture of concrete blocks or concrete bricks shall not contain calcite rock or dolomite rock.

Sand for rolling into the top surface of the asphalt concrete bridge surfacing shall be clean, hard angular silica sand conforming to the following gradation.

Sieve Size	*Total Per Cent Passing*
No. 4	100
No. 8	65-85
No. 16	40-62
No. 30	22-45
No. 50	10-35
No. 100	0-10

902.05 Coarse Aggregate.

Course aggregate shall be graded to conform with Table 2, Grading Requirements for Coarse Aggregate, in ASTM C33.

(A) Coarse aggregate for concrete, except for bridge slabs and bridge slab overlays, shall be broken stone, gravel, or blast furnace slag. Coarse aggregate for bridge slabs and slab overlays shall be broken stone only, containing no carbonate rock. Coarse aggregate shall conform to the requirements which follow and shall be graded as specified.

The maximum size of the coarse aggregate shall not exceed three-quarters of the clear distance between the reinforcing bars, or between the bars and the face of the concrete, whichever is the lesser of the two. The size number used shall conform to the restrictions on maximum size as specified above.

Blast furnace slag shall be the air-cooled residue resulting from the production of pig iron and shall consist of tough, durable, angular fragments uniform in density, absorption, quality, and shall be free from flux stone, dirt, or other objectionable material. The slag shall conform to the following quality requirements:

Weight per cubic yard(loose measure), pounds	330 minimum
Percentage of wear (Los Angeles Test)	50 maximum
Sulfur, percentage by weight	2 maximum

(B) Lightweight aggregates for structural concrete shall conform to ASTM C330.

Certified test reports for ASTM C330 on newly manufactured lightweight aggregate including, but not limited to, the test items listed herein shall be verified by an independent testing laboratory within 2 years and shall be submitted to the Engineer within 60 days prior to the start of the project.

(1) Water Absorption.
(2) Bulk Specific Gravity and Dry Rodded Unit Weight per ASTM C29.
(3) Soundness loss per AASHTO T104 - shall be less than 10% after 5 immersion and drying cycles using the sodium sulfate method.
(4) Freeze/Thaw for the aggregate per AASHTO T103 Procedure A.
(5) Density Tests per ASTM D4253 AND D4254
(6) Abrasion Loss when tested in accordance with AASHTO T 96 shall not exceed 40%.
(7) The maximum chloride content (CAL DOT Test 422) shall be 100 ppm.

Manufactured aggregate from dredged sediment shall be a rotary kiln expanded shale and shall meet all United States EPA Toxicity Characteristic Leaching procedure regulatory limits. The maximum size shall be 3/4 inch with gradation requirements per ASTM C330.

The unit weight of the dry loose aggregate shall conform to those values given in Table II of ASTM C330.

Two possible sources of manufactured lightweight aggregate from dredged sediment that may be used when approved by the Engineer are lightweight aggregate as supplied by Solite Corporation, P.O. Box K-28, Richmond, VA 23288 Ph (888)854-9634; Norlite Corporation, 628 S. Saratoga Street, Cohoes, NY 12047, Ph (518)235-0030, or other comparable source.

(C) Coarse aggregate for asphalt concrete shall conform to the requirements of Subsection 902.02.

(D) Aggregate for filter blanket shall be Size No. 8 washed gravel.

(E) Aggregate for underdrains shall be Size No. 8 washed gravel or broken stone.

(F) Lightweight aggregate manufactured from dredged sediment required or allowed to be used as structural fill shall be SOLITE, NORLITE or an approved rotary kiln substitute meeting the requirements of ASTM C330.

Certified test reports for ASTM C330 on newly manufactured lightweight aggregate including, but not limited to, the test items listed herein shall be verified by an independent testing laboratory within 2 years and shall be submitted to the Engineer within 60 days prior to the start of the project.

(1) Water Absorption.
(2) Bulk Specific Gravity and Dry Rodded Unit Weight per ASTM C29.
(3) Soundness loss per AASHTO T104 - shall be less than 10% after 5 immersion and drying cycles using the sodium sulfate method.
(4) Freeze/Thaw for the aggregate per AASHTO T103 Procedure A.
(5) Bulk Density Tests per ASTM D4253 and D4254

(6) Abrasion Loss when tested in accordance with AASHTO T 96 shall not exceed 40%.
(7) Direct Shear Test per ASTM D3080
(8) Consolidated Triaxial Test per Corps of Engineers EM-1110-2-1906, Appendix X
(9) Gradings shall be tested per ASTM A136.
(10) Resistivity, ohm-cm, shall be greater than 3,000, per AASHTO T 288.

No by-product slags, cinders or by-products of coal combustion shall be permitted. Lightweight aggregate shall have a proven record of durability, as determined by ASTM C88 and ASTM C131, and be non-corrosive, as determined by CAL DOT Test 422 with the following physical properties:

Sieve Size	*Delivered Gradation: % Passing*
1"	100
3/4"	90-100
3/8"	10-50
No. 4	0-15

The dry loose density shall be less than 50 pcf.

The maximum in situ density (moist, surface dry) shall be less than 60 pcf. The minimum compacted dry density shall be equal to 65% relative density as determined by ASTM D4253 and D4254, or as otherwise specified by the Engineer.

The maximum soundness loss when tested with 5 cycles of magnesium sulfate shall be 10% (ASTM C88).

The maximum chloride content (CAL DOT Test 422) shall be 100 ppm.

The minimum strength of loosely placed material, as determined from drained triaxial tests, shall equal that of cohesionless soil with an angle of internal friction of 36°. Minimum strength of material compacted to 65% relative density shall equal that of a cohesionless soil with an angle of internal friction of 40°.

902.06 Stone.

Stone shall be sound, durable, angular rock, free from spoil, shale, and organic material and shall be subject to approval by the Engineer.

Grade A stone shall be riprap weighing not less than 50 nor more than 150 pounds each, and shall be reasonably graded. Not more than 40% shall weigh more than 100 pounds each. An allowance of 10% by weight of quarry spalls (weighing less than 50 pounds each) will be permitted.

(A) Grade B stone shall be crushed stone conforming to Size No. 2, ASTM C33 of either trap rock, dolomite, granite, limestone, or gneiss. Unless otherwise approved, only one kind shall be used.

(B) Grade C stone shall be riprap weighing not less than 10 or more than 25 pounds each, and shall be reasonably graded. Not more than 35 percent shall weigh more than 15 pounds each. An allowance of 15 percent by weight of quarry spalls (weighting less than 5 pounds each) will be permitted.

(C) Grade D stone shall be riprap weighing not less than 15 nor more than 35 pounds each, and shall be reasonably graded. Not more than 35 percent shall weigh more than 25 pounds each. An allowance of 15 percent by weight of quarry spalls (weighing less than 7 pounds each) will be permitted.

(D) Grade E stone shall be riprap weighing not less than 75 nor more than 200 pounds each, and shall be reasonably graded. Not more than 35 percent shall weigh more than 130 pounds each. An allowance of 15 percent by weight of quarry spalls (weighing less than 35 pounds each) will be permitted.

Riprap stones shall consist of a uniformly graded mixture of rock conforming to one or more of the Grades A, C, D or E above as required by the Contract Documents such that 50 percent of the mixture by weight shall be equal to or larger than the designated median stone (d_{50}) size. The well-graded mixture shall be composed primarily of the larger stone sizes, but with a sufficient mixture of other sizes to fill the progressively smaller voids between the stones. The diameter of the largest stone size in such a mixture shall be 1.5 times the d_{50} size.

Riprap stone material shall not contain disintegrated granite or shale and shall meet the following limits when tested as specified. The Contractor shall be responsible for all sampling and testing specified herein.

The following tests shall be performed on samples of stone riprap material obtained for use as riprap stone protection when required by the Engineer.

(1) Soundness – Freezing and Thawing. Maximum loss of 10% when tested in accordance with ASTM D5312.

(2) Bulk Specific Gravity. Minimum specific gravity of stone shall be 2.50 when tested in accordance with ASTM C127.

Except for specific gravity and freeze thaw testing, acceptance of quality and size of riprap material will be made by visual inspection at the job site unless required otherwise by the Engineer.

SECTION 903 – HOT MIX ASPHALT (HMA)

903.01 Composition of Mixtures.

The composition of the mixture for of HMA surface courses shall be coarse aggregate, fine aggregate, and asphalt binder and may also include mineral filler and up to 15 percent RAP. The composition of the mixture for base or intermediate courses shall be coarse aggregate, fine aggregate, and asphalt binder and may also include mineral filler and up to maximum of 50 percent by weight of RAP as follows:

Recycled Materials		
Percent	*Reclaimed Asphalt Pavement (RAP) Source*	*Maximum Recycled Percent*
0 to 10	Open System	10
11 to 50	Closed System	50

Closed system is defined as RAP obtained from removal of HMA overlay or milling performed on Project.

The grade of asphalt binder shall be determined by the Contractor, and submitted for approval by the Authority, for those projects that include the use of 11 to 50 percent of RAP.

Reclaimed asphalt pavement, RAP, may be used in base and leveling course mixes of mainline paving and in all shoulder pavement layers. The use of RAP materials will not be permitted in mainline surface courses. The RAP shall be the product resulting from the cold milling or crushing of an existing hot mix asphalt pavement and shall be so processed so that 100 percent will pass the maximum aggregate size for the mixture being produced. RAP shall not exceed 25 percent by mass (weight) of the total mixture.

When RAP is used, the supplier shall have in operation an ongoing daily quality control program to evaluate the RAP. As a minimum this program shall consist of the following:

(1) An evaluation performed to ensure that the bituminous material in the RAP is asphalt binder free from solvents or other contaminating substances, the coarse aggregate contained in the RAP conforms to the requirements of Subsection 902.02 for broken stone, and the fine aggregate in the RAP conforms to the requirements of Subsection 902.04, and that these materials compare favorably with the design submittal.

(2) An evaluation of the RAP material performed using a solvent or an ignition oven to qualitatively evaluate the aggregate components to determine compliance with Subsections 902.02 and 902.04. Quality control reports shall be made available to the Engineer.

When the RAP percentage exceeds 10 percent, a complete mix design including Marshall plugs shall be submitted.

Materials shall conform to the following:

AGGREGATES FOR HOT MIX ASPHALT ..... SECTION 902

MINERAL FILLER ..... AASHTO M17

ASPHALT BINDER ..... SECTION 904

The several mineral constituents shall be combined in such proportions that the resulting mixture meets the grading requirements in Table 903-1. In calculating the percentage of aggregates of the various sizes, the asphalt binder is excluded.

Aggregates shall conform to the requirements in Section 902 and the following:

The combined coarse aggregate in the mixture shall comply with the requirements in Table 903-5 and the combined fine aggregate in the mixture shall comply with the requirements in Table 903-6. Only broken stone shall be used in the pavement surface and leveling courses, or in the bridge surfacing course. The stone shall be either argillite, gneiss, granite, quartzite or trap rock. Carbonate stone shall not be used in these courses. Only one of the geologic classifications shall be used in a mixture unless otherwise authorized.

Nominal maximum size of aggregates and asphalt binder for mixes shall be as follows:

	Asphalt Binder	*Aggregate Size*
Base Course	PG 64-22	1-1/2″(37.5 mm)
Leveling Course*	PG 64-22	1-1/2″(37.5 mm) or 1″ (25.0 mm)
Surface Course	PG-64-22	3/4″(19 mm)
Surface Course	PG-76-22	3/4″(19 mm)

* Where permitted by the Contract Documents the nominal aggregate size for leveling courses may be adjusted to 3/4", 1/2", or 3/8" mixes as necessary to accommodate the lift thickness of material to be placed. Lift thickness shall be a minimum of 2 times the nominal maximum aggregate size unless otherwise permitted by the Engineer.

903.02 Grading Requirements..

In all cases, the job-mix formula plus or minus the allowable tolerance shall be within the specified master range.

In all cases, the job-mix formula plus or minus the allowable tolerance shall be within the specified master range.

The several mineral constituents for HMA mixtures shall be sized, graded, and combined in such proportions that the resulting composite blend will meet the grading requirements of the mixes shown in the mixture design tables, with at least one-half of the percentage passing the No. 200 sieve being mineral filler (mineral filler for bridge surfacing mixtures shall be limestone dust.) The grading limits are based on material of a uniform specific gravity. Correction shall be made to compensate for any variations in specific gravity of the individual aggregates. Materials shall be well graded between the various sizes specified. To such composite blended aggregates (considered as 100 percent) shall be added asphalt binder and additive, when required, within the percentage limits specified in the mixture design tables.

TABLE 903-1 HMA MIXTURE DESIGN

----	BASE COURSES	BASE COURSES	LEVELING COURSE	SURFACE COURSE	SURFACE COURSE	TOP LAYER
MIX	I-1	I-2	I-3	I-4	I-5	I-6
2 Inch	---	100	---	---	---	---
1 ½ Inch	100	90-100	100	---	---	---
1 Inch	90-100	80-100	90-100	100	---	---
¾ Inch	60-80	65-95	75-90	98-100	---	---
½ Inch	---	50-85	60-80	88-98	100	---
3/8 Inch	15-40	40-75	50-70	65-88	80-100	100
No. 4	0-10	25-60	25-60	35-65	55-75	80-100
No. 8	---	20-50	15-45	25-40	30-56	65-100
No. 16	---	---	---	15-35	20-45	40-80
No. 30	---	---	---	10-30	15-35	20-65
No. 50	---	8-30	3-18	8-25	10-30	7-40
No.100	---	---	---	---	---	5-20
No. 200	---	4-12	1-7	3-10	4-8	4-10
Asphalt Binder, Percent by Weight of Total Mixture						
----	2.5-3.1	3.5-8	4-8.5	5-9.5	5-7	7-12

SIEVE SIZE – Grading of Total Aggregate (Coarse Plus Fine, Plus Filler) Amounts Finer Than each Laboratory Sieve (Square Opening), Weight Percent.

TABLE 903-2 HMA BRIDGE SURFACING MIXTURE DESIGN		
Sieve Size *(Square Opening)*	Total % Passing *(By Weight)*	
	I-4 (Modified)	I-5 (Modified)
1″	100	---
3/4"	98-100	---
1/2"	88-98	100
3/8″	65-88	80-100
No. 4	35-65	55-75
No. 8	25-50	30-60
No. 16	18-40	20-45
No. 30	12-30	15-35
No. 50	10-25	10-30
No. 100	----	----
No. 200	3-10	4-10
Asphalt Binder (% by Weight of Total Mix)	4.5 – 9.5	5.0 – 10.0

903.03 Job Mix Formula.

Not less than ten working days prior to the scheduled start of production of any asphalt paving mixture, the Contractor shall submit, in writing, a proposed job-mix formula to the Engineering for approval.

The following information shall be furnished with the proposed job-mix formula:

(A) The specific project on which the mixture will be used.

(B) The source and description of the materials to be used.

(C) The complete job-mix formula including complete data from Marshall design.

(D) The name of the individual or agency responsible for the Quality Control of the mixture during production.

The submitted job-mix formula shall include data of all the tests made in accordance with the Asphalt Institute "Mix Design Methods for Asphalt Concrete," Manual Series No. 2 (MS-2), Marshall Method, showing that the material as produced for the various mixes will meet this requirements shown in Table 903-3.

The job mix formula which includes RAP shall also include the following based on the weight of the total mixture:

- Percentage of RAP
- Percentage of asphalt binder in the RAP.
- Percentage of new asphalt binder.
- Total percentage of asphalt binder.
- Percentage of each type of new aggregate.

For mixes containing RAP, the job mix formula shall also establish the target percentage of dry weight of aggregate passing each required sieve size and the target percentage of recoverable bitumen to be present in the recycled HMA mixture when discharged from the plant and when tested according to Section 990, B-3 or AASHTO T 308.

The job mix formula containing up to 10 percent of RAP, may be established by modifying a previously approved mix design to allow for the introduction of RAP except that the Marshall design procedure and the specimens will not be required.

For mixes containing 11 to 50 percent of RAP, the job mix formula shall be determined according to the Asphalt Institute Mix Design Method MS-2, Marshall Method, and shall comply with, Table 903-3. The preparation of the mixture shall be modified to simulate the mixing process achieved by mixing RAP with new aggregates and new asphalt binder. To achieve a homogeneous mixture at the specified molding temperature, the new aggregates must be heated to a temperature considerably higher than conventional hot-mixes, and the mixing time must be extended.

For mixes containing 11 to 50 percent of RAP, the operation of the plant shall be controlled so that the proportions being included conform to the job mix formula within the tolerances established for manual batch plants.

When unsatisfactory results for any specified characteristic of the work make it necessary, a new job mix formula may be established for approval. In such instances, if corrective action is not taken, the Engineer reserves the right to require an appropriate adjustment.

Should a change in sources or properties of materials be made or significant changes in the properties of the RAP occur, the Engineer may require that a new job mix formula be established and approved before production can continue.

The producer shall perform quality control testing according to the approved quality control plan to keep the mix within the specified tolerances.

When two consecutive lot samples or three out of five consecutive lot samples of any mix or combination of mixes fail to conform to the job mix formula for the No. 8 sieve, No. 200 sieve, or the asphalt content, or the gradation for the remaining sieves falls outside the ranges listed in Subsection 903.02, Table 903-1, work will be stopped until corrective action is taken.

The temperature of the mixture at discharge from the plant or surge and storage bins shall be maintained at a minimum of 15 °F above the minimum laydown temperature required to deliver material to the project to achieve optimum compaction. In no case shall the mixture temperature exceed 325 °F.

The moisture content of the mixture at discharge from the plant shall not exceed one percent. Moisture determinations are based on the weight loss on heating for one hour in an oven at 280 ± 5 °F of an approximately 1,500-gram sample of mixture. A minimum of one sample per lot but not less than two samples per day will be tested for moisture. Samples for moisture determinations will be obtained according to, Section 990, B-2 or ASTM D 3665.

The total mineral aggregate and bituminous material shall be so combined and mixed that at least 95 percent of the coarse aggregate particles are entirely coated with asphalt binder as determined by AASHTO T 195. At the option of the Engineer, random samples will be obtained from each of five trucks, and the adequacy of the mixing will be determined on the average of particle counts made on these five test portions. If the above requirement is not fully met, mixing time shall be increased as necessary to obtain the required degree of coating.

Resistance to plastic flow for HMA mixtures when combined in the proportions of the job mix formula shall conform to Subsection 903.03, Table 903-3 when tested according to AASHTO T 245 except reference to 1-inch maximum size aggregate is deleted and except that 75 blows of the compaction hammer are to be used on specimens for Mix I-2, and I-4.

TABLE 903-3 JOB-MIX DESIGN REQUIREMENTS

	Pavement Mix Designation				*Bridge Surfacing*	
	Base Course	*Leveling Course*	*Surface Course*			
Design Requirements	I-2	I-3	I-4	I-5	I-4 Modified)	I-5 Modified)
Stability (lb.) (min. @ 75 blows on each side)	1200	1200	1800	1200	2500	1800
Flow (0.01 in.)	6-18	6-18	6-16	6-16	6-16	6-16

Design Voids in Mineral Aggregate (VMA) (min %)	12	13	14	16	14	16
Design Air Voids (Note 1) (%)	3-5	3-5	3-5	3-5	3-5	2-6
Control Air Voids average of 5 cores (Notes 1 & 2) (%)	2-8	2-8	2-8	2-8	2-8	2-8

Note 1: As determined from the values for the maximum specific gravity of the mix and the bulk specific gravity of the compacted mixture. Maximum specific gravity of the mix will be determined according to AASHTO T 209 except that minimum sample size may be waived to use a 4-inch diameter specimen. Bulk specific gravity of the compacted mixture will be determined according to AASHTO T 166.

Note 2: As determined by the Engineer from drilled pavement cores taken at the direction of the Authority. The air voids will be determined based on the bulk specific gravity tests performed on each core individually, and the maximum specific gravity tests performed by the Authority's Laboratory according to Section 990, B-9.

The Authority, at no cost to the Contractor, will arrange for performance of tests for the purpose of reviewing and confirming the job-mix formula. The plant laboratory for the Contractor's quality control system shall be made available for the Authority's use.

The approved job-mix formula shall remain in effect until a change is authorized in writing by the Engineer. Should a change in sources of materials be made, or when unsatisfactory results or other conditions make it necessary, the Engineer may require that a new job-mix formula be submitted for approval.

903.04 Sampling and Testing.

(A) Drum Mix Plants.

Five random samples will be taken from each lot of approximately 3,000 tons of each type of mix. When a lot of HMA is necessarily less than 3,000 tons, samples will be

taken at random for each type of mix at the rate of one sample for each 600 tons or fraction thereof.

At the drum mix plants, the HMA will be sampled and tested for compliance.

To determine the quantity of bitumen and the gradation of the aggregate in HMA mixtures for acceptance testing purposes; composition testing at the rate specified, will be performed each day for each type mixture according to, Section 990, B-3 or AASHTO T 308. The producer's quality control technician shall be present during periods of mix production for the purposes of quality control testing and assisting the Authority's representative to ensure compliance.

(B) FULLY AUTOMATED BATCH PLANTS.

Under the supervision of the Engineer, five random samples shall be taken from each lot of approximately 3,000 tons of each type of mix. When a lot of HMA is necessarily less than 3,000 tons, samples shall be taken at random for each type of mix at the rate of one sample for each 600 tons or fraction thereof.

Acceptance testing for gradation and asphalt binder will be performed using bin samples and printed weigh tickets according to, Section 990, B-5 or AASHTO T 308.

(C) GENERAL SAMPLING AND TESTING REQUIREMENTS.

Acceptance testing of HMA will be performed in a timely manner. Sampling will be performed according to AASHTO T 168, and, Section 990, B-2.

The Authority will not perform the composition control testing or other routine test functions in the absence of or instead of the plant laboratory technician.

Acceptance testing does not preclude the Engineer from requiring disposal of any batch or shipment without further testing which is rendered unfit for its intended use due to contamination, segregation, improper temperature, or incomplete coating of the aggregate. For other than improper temperature, visual inspection of the material by the Engineer is considered sufficient grounds for such rejection.

When materials are rejected for any of the above reasons, except for improper temperature, samples will be taken for testing. Should such testing indicate that the material was erroneously rejected, payment will be made for the rejected material.

HMA mixtures processed through a surge or storage system will be inspected visually to ensure that they are essentially free of lumps of cold material. Any batch or shipment of material found to be so contaminated will be rejected and shall be disposed of.

(D) CONFORMANCE TO JOB MIX FORMULA.

Conformance to the job mix formula will be determined on the basis of extraction or ignition oven samples taken and tested at the mixing plant.

The average of test results for the five samples or less for a lot shall conform to the job mix formula within the applicable tolerances of Subsection 903.05, Tables 903-2 and 903-3. Also the range of test results samples from a lot shall be within the applicable tolerances of Subsection 903.05, Table 903-4. Payment for any lot that does not comply with these requirements will be reduced according to Subsection 903.05, Table 903-5. The Engineer may order the removal of any material subject to the maximum reduction shown in Subsection 903.05, Table 903-5.

On each day of production at least one sample shall be obtained of the new aggregate from each cold feed bin, the RAP from its cold feed, and the mineral filler. These samples shall then be tested to determine aggregate grading, and for RAP used in mixes containing 11 to 50 percent of RAP, the percent asphalt, and moisture content. The results of these tests will be theoretically combined and plotted on control charts supplied by the Engineer.

(E) Conformance to Control Stability Requirements.

Control stability will be determined on the basis of samples taken and tested at the mixing plant. Conformance to the control stability requirements specified in Subsection 903.03, Table 903-3 will be determined from the average of five stability determinations for each lot of material. The material for the stability determinations will be obtained according to Section 990, B-2 or ASTM D 3665 at the mixing plant at the same time that the random samples are taken for measurement of conformance to the job mix formula and tested for resistance to plastic flow. Payment for any lot that does not comply with the specified stability requirements will be reduced according to Subsection 903.05, Table 903-6. The Engineer may order the removal of any material subject to the maximum reduction shown in Subsection 903.05, Table 903-6.

(F) Initial Production Lot.

Reductions for nonconformance to job mix formula and control stability requirements will not be applied to the initial lot each year for each type of mix, also these reductions will not be applied to the initial lot when a new job mix formula is approved in which a change of aggregate producer has caused the maximum specific gravity to change by more than 0.04 as determined by the Engineer. The above waiver does not apply when the average result of the job mix formula conformance samples of the initial lot varies outside those limits for the No. 8 or No. 200 sieve or asphalt content shown in Subsection 903.05, Table 903-1 or the control stability shown in Subsection 903.03, Table 903-3. In this case, the entire initial lot is subject to nonpayment. For the purpose of applying this requirement, if the job mix formula for a top course mix has its asphalt content at the lower limit of Subsection 903.05, Table 903-1, then the lower limit shall be decreased by 0.45 percent.

The initial lot each year is defined as the plant's first day's production, or a minimum of 1,000 tons, in a calendar year. In the event the first day's production does not reach 600 tons, the initial lot is to be extended until the 600-ton level is reached or the Project is completed. Every truck will be visually checked before the first sample being taken. The first sample shall be taken in the first 100 to 200 tons. The remaining samples shall be taken at a rate of one sample every 600 tons, starting at 600 tons. The random sampling numbers may be adjusted to suit production at the discretion of the Engineer.

(G) Plants Producing for Multiple Projects.

When a plant is producing HMA mixtures for two or more Authority Projects at the same time, only one common set of lots for stability and job mix formula will be established and the samples taken for each lot shall apply to each Project on which a part of that lot was used.

903.05 Tables

Additional Tables referenced in the Specifications are as follows:

Table 903-4 Tolerances from Job Mix Formula for Average of Five Samples				
Gradation Mix No.	*I-2*	*I-4*	*I-4(Mod)*	*I-5HD(Mod)*
Sieve Size all Plants	*Tolerance Percentage (Plus or Minus)*			
No. 8	4.5	4.0	4.0	4.0
No. 50	4.0	4.0	4.0	4.0
No. 200	1.4	1.4	1.4	1.4
HMA (Drum Mix Plant)	0.45	0.45	0.45	0.45
HMA (Fully Automated Batch Plants)(Note 1)	0.15	0.15	0.15	0.15

Note 1: If the Fully Automated Batch Plant is tested according to the requirements for a drum plant, the drum plant tolerances shall apply.

Table 903-5 Tolerances from Job Mix Formula for Average of N Samples from a Short Lot					
Gradation Mix No.		*I-2*	*I-4*	*I-4(Mod)*	*I-5(Mod)*
Number of Samples	*Sieve Size all Plants*	*Tolerance Percentage (Plus or Minus)*			
4	No. 8	5.0	4.5	4.5	4.5
4	No. 50	4.5	4.5	4.5	4.5
4	No. 200	1.6	1.6	1.6	1.6
HMA (Drum Mix Plant)		0.50	0.50	0.50	0.50
HMA (Fully Automated Batch Plants)(Note 1)		0.15	0.15	0.15	0.15
3	No. 8	6.0	5.0	5.0	5.0
3	No. 50	6.0	5.0	5.0	5.0
3	No. 200	1.8	1.8	1.8	1.8
HMA (Drum Mix Plant)		0.60	0.60	0.60	0.60
HMA (Fully Automated Batch Plants)(Note 1)		0.20	0.20	0.20	0.20
2	No. 8	7.0	6.5	6.5	6.5
2	No. 50	6.5	6.5	6.5	6.5
2	No. 200	2.2	2.2	2.2	2.2
HMA (Drum Mix Plant)		0.70	0.70	0.70	0.70
HMA (Fully Automated Batch Plants)(Note 1)		0.25	0.25	0.25	0.25

Table 903-6 Tolerances for Range of Five Samples or Less					
Gradation Mix No.		*I-2*	*I-4*	*I-4(Mod)*	*I-5HD(Mod)*
Sieve Size all Plants		*Tolerance Percentage (Plus or Minus)*			
No. 8		16.0	13.0	13.0	13.0
No. 50		13.0	13.0	13.0	13.0
No. 200		4.8	4.8	4.8	4.8
HMA (Drum Mix Plant)		1.5	1.5	1.5	1.5
HMA (Fully Automated Batch Plants)(Note 1)		0.4	0.4	0.4	0.4

For any one characteristic, the range is the absolute difference between the smallest and largest value in the lot.

Table 903-7 Reduction per Lot Due to Nonconformance to Job Mix Formula and Range in the Characteristics of Asphalt Content or Aggregate Passing No. 8or No. 200 Sieve. (See Note 1)	
Deviation of average of five samples or less from a lot beyond applicable tolerances in Tables 903-4 and 903-5 above. (Percent of tolerance in Table 903-4 above for the applicable type plant)	
1 to 50	2%
51 to 100	5%
Over 100	10%
Deviation of sample range beyond applicable tolerance in Table 903-6 above. (Percent of tolerance in Table 903-6 above for the applicable type plant) Reduction Per Lot	
Greater than 0	5%

Note 1: Where more than one reduction due to nonconformance to job mix formula is applicable to a lot, only the greatest single reduction will be used.

Note 1: Where more than one reduction due to nonconformance to job mix formula is applicable to a lot, only the greatest single reduction will be used.

Table 903-8 Reduction Per Lot Due to Nonconformance to Stability Requirements	
Deviation of five sample average below control stability of Table 903-3. (pounds)	
1 to 150	2%
151 to 300	5%
Over 300	10%

SECTION 904 - BITUMINOUS MATERIALS

904.01 Asphalt Cement.

Asphalt binder shall conform to AASHTO MP-1, "Standard Specifications for Performance Graded Asphalt Binder." Grade 76-22 shall be used except that an asphalt of softer grade may be permitted when the mixture contains RAP and except where otherwise specified.

PG 76-22 asphalt binder shall be storage-stable, pre-blended, homogeneous, polymer modified asphalt binder using Styrene-Butadiene (SB) or Styrene-Butadiene-Styrene (SBS) formulations with the rolling thin film oven test (RTFOT) residue having a minimum Elastic Recovery (ASTM D 6084) of 50 percent when tested for 60 minutes at 77 ºF and 2 inches/minute elongation. A written certification of compliance shall be furnished for the polymer modified asphalt binder and shall be submitted according to Subsection 105.04.

904.02 Tack Coat.

Tack coat material shall be undiluted Grade RS-1 or Grade SS-1 emulsified asphalt, conforming to the requirements of AASHTO M140 or grade PG 64-22 conforming to the requirements of AASHTO MP1. Asphalt material grade RC-70 or RC-250 conforming to the requirements of AASHTO M81 may only be used when so directed by the Engineer.